

A NEW MIMICRY PLANT.

(MESEMBRIANTHEMUM LAPIDIFORME, Marl.)

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(Received and Read October 16, 1913.)

The species resembles in the shape of its leaves *M. Bolusii*, but the flowers are quite different, and, as a matter of fact, unique in their mode of insertion and attachment. During the dry season (November–March) the plant consists merely of one pair of leaves, each one shaped like a tetrahedron, with rounded edges and points, the two bodies being pressed against each other with their bases. In nature these leaves are of a brownish-red colour and closely resemble the angular pieces of brown shale and sandstone between which the plants grow. As they are half-buried in the ground they can be detected only with difficulty, even in localities where their occurrence is known.

In winter, when rain has fallen, a new pair of leaves appears between the old ones, forcing them apart, and in spring two opposite flowers are produced from the central axis just outside the junction of the old leaves, not between them as in *M. Bolusii* and other members of the section *Aloidea*. These flowers are peduncled, the peduncles bearing two fleshy bracts near their base. The connection between the base of the peduncle and the plant is very thin, about $\frac{1}{2}$ mm. only. This is obviously an adaptation to the dispersal of the ripe seed-vessel, which becomes easily detached at this spot, to be carried away by the wind. At that time (beginning of summer) the old leaves have shrivelled up, the new pair has assumed the colour of the surrounding stones, and the plant remains dormant until the winter brings rain again.

MESEMBRIANTHEMUM LAPIDIFORME, spec. nov. (Sect. *Aloidea*).

Planta acaulis. Folia 2–4, crassa, brevissima, triquetra, subtus plano-convexa, superne obtuso-carinata apice obtusissimo. Flores 2, laterales, oppositi, pedunculati, bibracteati. Sepala 6; petala linearia, alba, sepalis longiora. Stigmata 6.

Leaves nearly tetrahedral in shape, 30–40 mm. long and broad, flat or slightly rounded below, with a blunt keel on the upper side and a very obtuse apex. Surface finely granulated from the numerous idoblasts embedded in the green tissue. Colour of old leaves brownish-red, of the young pair, which appears in winter, glaucous. Flowers opposite, pedunculate; peduncle 25–40 mm. long, bringing the flower just above



Mesembrianthemum lapidiforme, Marl.

Entire plant, consisting of one pair of old leaves (brownish-red), one pair of young leaves in the centre (glaucous), and 2 flowers, the front flower showing the peduncle with its 2 fleshy bracts. Nat. size.

the surface of the soil. Calyx 6-lobed, the sepals 12 mm. long, the 3 innermost with a hyaline margin and a gibbous apex. Petals linear, 15–18 mm. long, white, spreading or erect. Stamens in several rows, spreading, the filaments pink, the pollen yellowish-white. Stigmas six.

Discovered by Capt. E. Alston, in the Ceres Karoo, flowering September, 1913. Herb. Marloth, No. 5277.